

**REMARKS**

The present amendment and remarks are in response to the non-final office action entered in the above-identified case and mailed on April 14, 2004. Claims 1-49 are pending in the application.

1. Claims 1-49 have been provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over (i) claims 1-65 of Application No. 2003/0032391 A1, (ii) claims 1-50 of Application No. 2003/0035385 A1, and (iii) claims 1-50 of Application No. 2003/0031141 A1. Regarding these provisional obviousness type double patenting rejections, filed herewith is a properly executed Terminal Disclaimer. Applicants respectfully submit that, in view of the filing of the Terminal Disclaimer, the grounds for the double patenting rejection are removed and the rejections should be withdrawn.

2. Claims 1-49 have been rejected under 35 U.S.C. §102(e) as being unpatentable by Schweinhart, U.S. Patent No. US 20030032391 A1. Applicants respectfully traverse this rejection of claims 1-49 under 35 U.S.C. §102(e), as follows. The Schweinhart et al. reference may not properly be considered as prior art against the present invention for purposes of applying 35 U.S.C. §102(e). 35 U.S.C. §102(e) states

A person shall be entitled to a patent unless – (e) the invention was described in (1) an application for patent, published under section 122(b) by another filed in the United States before the invention by the Applicant....

in the present case both the Schweinhart et al. reference and the instant application were filed on the same day, namely August 9, 2001. The filing of a patent application serves as conception and constructive reduction to practice of the subject matter described in the application. See MPEP 2138.05. Thus, the filing date of the present application serves as the constructive date of invention for the invention claimed. (Though clearly the actual date of invention predates the constructive date of invention.) Since the Schweinhart et al. reference was filed on the same day as the Applicant's constructive reduction to it cannot be filed before Applicant's date of invention. Accordingly 35 U.S.C. §102(e) does not apply and the rejection should be withdrawn.

3. (a) Claim 1 has been rejected under 35 U.S.C. §103(a) as being unpatentable over Onodera (U.S. Patent No. 6,442,146) in view of Dreszer (U.S. Patent No. 6,442,661); (b) Claims 10 and 32 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Thompson (U.S. Pub. No. 2002/0104920) in view of Willmann (U.S. Patent No. 5,521,923); and (c) Claims 1-2, 10-11, 21-22, 32-33 and 41 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Walsh (U.S. Pub. No. 2002/01144313) in view of Boulandet (U.S. Patent No. 6,684,273). Applicants respectfully traverse these rejections as follows.

Applicants now turn to the rejection of claim 1 under 35 U.S.C. §103 as being obvious over the combination of Onodera and Dreszer. In order to establish prima facie obviousness there must be, among other factors, some teaching or suggestion within the references themselves or within the general knowledge available to those skilled in the art that would have led one of ordinary skill in the art to combine the references in the manner suggested by the Examiner in order to arrive at the invention claimed. Also, once combined the references must teach or suggest every element of the invention claimed. With regard to rejected claim 1, there is no teaching or suggestion within either the Onodera or Dreszer references or in the art generally that would have led one of ordinary skill in the art to combine the references in the manner suggested by the Examiner. Furthermore, even when the references are combined they fail to teach or suggest every element of claim 1.

Onodera teaches a time division multiple access communication system that includes an office communication environment, a walking speed mobile communication environment a vehicle running speed environment, and a satellite communication environment. Onodera makes no mention of storing packets in queues nor of dynamically changing a depth of a queue according to a prescribed scheme based on past bandwidth allocations associated with the queue. In fact, Onodera makes no mention of queues or packets whatsoever.

Dreszer on the other hand teaches a self-tuning memory management for computer systems. Dreszer does describe creating size queues for memory allocations/deallocations based upon size. However, the queues disclosed by Dreszer are

created and manipulated within the context of allocating computer memory. (See abstract). Nothing in the teaching of Dreszer indicates that his method of creating size queues for memory allocations/deallocations is at all applicable to a time-division multiple access communications system such as that disclosed by Onodera since the two references are entirely unrelated and each makes no mention of the field of use pertaining to its counter part. One of ordinary skill in the art would have had no motivation to combine the two references as suggested by the Examiner. On this ground alone the Examiner has failed to establish prima facie obviousness.

Nonetheless, even when combined, neither Onodera nor Dreszer teach or suggest dynamically changing the depth of queues based on past bandwidth allocations associated with the queue. Dreszer teaches creating size queues for memory allocations/deallocations based on size. Dreszer teaches absolutely nothing regarding changing queue depths based on bandwidth allocations (past, present or future). Onodera is silent altogether regarding dynamically changing the depth of queues. Accordingly, the Examiner's prima facie obviousness fails on this ground as well.

Next, Applicants turn to the rejection of claims 10 and 32 as being obvious over Thompson in view of Willmann. Applicants grounds for traversal are similar to those above. There is no teaching or suggestion within the references themselves or in the art generally for combining the teaching Thompson et al. with that of Willmann et al. Furthermore, even when improperly combined the references nonetheless fail to teach or suggest all elements of the invention claimed. Thompson et al. teach a method and apparatus for loading satellite software while moving a satellite to a new orbit. True, Thompson et al. disclose a terminal apparatus for transmitting to a satellite on a bandwidth on demand basis. However, Thompson et al. teach nothing regarding the transmission of data packets, nor anything regarding queue control logic for dynamically changing the depth of queues based on prior bandwidth allocations associated with respective queues. More importantly, Thompson et al. make no mention of the desirability or advantages of providing such dynamic queue control logic Willmann et al. on the other hand, has nothing whatsoever to do with loading satellite software while moving a satellite to a new orbit. Willmann et al. teaches a method and facility for temporarily storing data packets. The

date packets are temporarily distributed to two or more logic queues. The logic queues share a common buffer memory which is dynamically allocated between the queues as required to accommodate the queues. There is no reason why one of ordinary skill in the art would have thought to combine the concept of temporarily storing data packets in on or more logic queues wherein the logic queues share a common memory buffer whose locations are dynamically allocated to the individual logic queues only when required, as taught by Willmann et al. with the software loading techniques of Thompson et al. Because there is no reason to combine the references the Examiner's prima facie case for obviousness necessarily fails.

Furthermore, even when Thompson et al. and Willmann et al. are improperly combined they still fail to teach or suggest dynamically adjusting the depth of queues based on past bandwidth allocations associated with the queues as called for in both claims 10 and 32. For this reason also the Examiner has failed to establish prima facie obviousness under §103.

Lastly, Applicants turn to claims 1-2, 10-11, 21-22, 32-33 and 41 rejected over the combination of Walsh et al. and Boulandet et al. Yet again the Examiner has failed to provide any suggestion within the references themselves that would suggest to one of ordinary skill in the art that the two references could or should be combined in the manner suggested by the Examiner. There is no indication made by Walsh et al. that an adaptive jitter buffer would be at all useful in the efficient data transmission method based on contention protocol they disclose. Nowhere is jitter mentioned as a problem in such a system. Furthermore, Boulandet et al. completely fail to mention that such a jitter buffer would be advantageous for efficient data transmission based on a contention control. The references make no suggestion for the combination the Examiner relies on for rejecting the claims.

Furthermore, neither Walsh et al. nor Boulandet et al. teach or suggest dynamically controlling queue depth based on past bandwidth allocations as required by the independent claims of the present application. Since the Examiner has failed to establish that the claims would have been obvious over the prior art, the rejection under 35 U.S.C. §103 is improper and should be withdrawn.

Applicants, therefore, respectfully submit that all pending claims are in condition for allowance and notice to this effect is respectfully requested.

If, however, the Examiner believes that there are any unresolved issues requiring adverse action in any of the claims now pending in the application, it is requested that the Examiner telephone Mr. Craig Plastrik, at 301-601-7252, so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully Submitted,



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